What is claimed is:

- 1. An X-ray diagnostic system, comprising:
 - a CCD camera;
 - a device for generating external trigger pulses; and
 - a system control, formed in such a way that, in the absence of X-radiation, a readout of the CCD camera without a useful signal takes place at regular time intervals, wherein the system control is futher formed in such a way that, when an external trigger pulse occurs at a point in time at which no readout of the CCD camera is taking place, a read out without a useful signal is initially triggered and then an exposure of the CCD camera takes place, and wherein, when an external trigger pulse occurs at a point in time at which a readout of the CCD camera takes place, a readout without a useful signal is suppressed before an exposure of the CCD camera.
- 2. The X-ray diagnostic system as claimed in claim 1, wherein, when an external trigger pulse occurs at a point in time at which a readout of the CCD camera the X-ray diagnostic takes place, system is immediately triggered for the emission Xradiation and the useful signal is subsequently read out.
- 3. The X-ray diagnostic system as claimed in claim 1, wherein, when an external trigger pulse occurs at a point in time at which no readout of the CCD camera takes place, a readout without a useful signal is initially carried out and then the X-ray diagnostic system is triggered for the emission of X-radiation.

New Patent Application Docket No. 32860-000660/US

- 4. The X-ray diagnostic system as claimed in claim 1, wherein the device for generating external trigger pulses is an ECG electrode.
- 5. The X-ray diagnostic system as claimed in claim 1, wherein the device for generating external trigger pulses is a phase-angle sensor.
- 6. The X-ray diagnostic system as claimed in claim 2, wherein, when an external trigger pulse occurs at a point in time at which no readout of the CCD camera takes place, a readout without a useful signal is initially carried out and then, the X-ray diagnostic system is triggered for the emission of X-radiation.
- 7. The X-ray diagnostic system as claimed in claim 2, wherein the device for generating external trigger pulses is an ECG electrode.
- 8. The X-ray diagnostic system as claimed in claim 3, wherein the device for generating external trigger pulses is an ECG electrode.
- 9. The X-ray diagnostic system as claimed in claim 6, wherein the device for generating external trigger pulses is an ECG electrode.
- 10. The X-ray diagnostic system as claimed in claim 2, wherein the device for generating external trigger pulses is a phase-angle sensor.
- 11. The X-ray diagnostic system as claimed in claim 3, wherein the device for generating external trigger pulses is a phase-angle sensor.

- 12. The X-ray diagnostic system as claimed in claim 4, wherein the device for generating external trigger pulses is a phase-angle sensor.
- 13. The X-ray diagnostic system as claimed in claim 6, wherein the device for generating external trigger pulses is a phase-angle sensor.
- 14. The X-ray diagnostic system as claimed in claim 7, wherein the device for generating external trigger pulses is a phase-angle sensor.
- 15. The X-ray diagnostic system as claimed in claim 8, wherein the device for generating external trigger pulses is a phase-angle sensor.
- 16. The X-ray diagnostic system as claimed in claim 9, wherein the device for generating external trigger pulses is a phase-angle sensor.
- 17. An X-ray diagnostic system, comprising:
 a CCD camera;

means for generating an external trigger pulse; and

means for, when an external trigger pulse is generated when no readout of the CCD camera is taking place, providing a readout without a useful signal before an exposure of the CCD camera, and for, when an external trigger pulse is generated when a readout of the CCD camera is taking place, supressing a readout without a useful signal before an exposure of the CCD camera.

18. The X-ray diagnostic system as claimed in claim 17, wherein the means for providing is formed in such a way that, in the absence of X-radiation, a

New Patent Application Docket No. 32860-000660/US

readout of the CCD camera without a useful signal takes place at regular time intervals.

- 19. The X-ray diagnostic system as claimed in claim 17, wherein, when an external trigger pulse occurs at a point in time at which a readout of the CCD camera takes place, the X-ray diagnostic system is immediately triggered for the emission of X-radiation and the useful signal is subsequently read out.
- 20. The X-ray diagnostic system as claimed in claim 17, wherein, when an external trigger pulse occurs at a point in time at which no readout of the CCD camera takes place, a readout without a useful signal is initially carried out and then the X-ray diagnostic system is triggered for the emission of X-radiation.